CASE REPORTS

Benign Tumor of the Common Bile Duct

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BENIGN TUMORS of the extrahepatic biliary ducts, exclusive of the gallbladder, are extremely rare. Our experience with this condition during choledocholithotomy prompted this case report.

Report of a Case

A 65-year-old white woman was admitted to the Kaiser Foundation Hospital, Los Angeles, with complaint of intermittent colicky pain in the right upper quadrant of the abdomen of three weeks' duration. Three days before admission, the patient noticed that her skin was yellow, urine dark and stools clay colored. There was no previous history of gallbladder disease. The patient had been treated for hypertension for the previous five years.

She was obese, slightly icteric and appeared not to be in distress. Blood pressure was 170/100 mm of mercury, pulse rate 80 and temperature 98.4°F. Tenderness was noted on deep palpation of the right upper quadrant of the abdomen. No mass was felt and the liver, spleen and gallbladder were not palpable.

Hemoglobin was 14.2 gm per 100 ml and leukocytes numbered 11,500 per cu mm with normal differential. Urinalysis was positive for bile but otherwise not remarkable. Serum glutamic pyruvic transaminase was 75 units and alkaline phosphatase was 36.4 Bodansky units. Total bilirubin was 3.3 mg per 100 ml with 1.6 mg direct fraction. Prothrombin time was 105 per cent.

On radiological examination no abnormalities were seen in the chest and the gallbladder was not visualized on a cholecystogram. Studies of the upper gastrointestinal tract and the small bowel were within normal limits.

A diagnosis of cholelithiasis with obstructive jaundice was made and laparotomy was done through a right subcostal incision. The gallbladder, thickened and tense, contained numerous small calculi. The cystic duct was patulous and there was a calculus near its junction with the common bile duct. Also a calculus about 5 mm in diameter was impacted in the ampullary region of the common bile duct. The duct was slightly enlarged—12 mm in diameter. No other abnormality was noted on careful palpation of the liver, pancreas, stomach, duodenum and kidneys.

Following cholecystectomy the supraduodenal portion of the common bile duct was incised and the calculus was easily removed. At this point, a pedunculated polyp 1 cm in maximum diameter was seen projecting into the lumen of the common bile duct, just distal to the junction of the cystic duct. The pedicle was 5 mm in diameter. Although the polyp almost filled the lumen, it did not occlude it completely. Through an elliptical incision in the common bile duct, the polyp and about 0.5 cm of duct wall on either side of it were removed. On frozen section examination, no malignant change was seen. The common bile duct was then repaired over a T-tube. A cholangiogram showed no other pathologic change in the biliary tree.

The postoperative course was smooth and the patient was discharged on the eighth postoperative day. She was then asymptomatic, anicteric and having normal bowel movements. The T-tube was left in place until the twenty-first postoperative day, then removed when a cholangiogram showed no abnormality and serum bilirubin was within normal limits. When last seen, 18 months after

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operation, the patient was well. On microscopic examination of a section of the tumor (Figure 1) it was described as a benign polypoid adenomatous growth.

Discussion

The literature on benign tumors of the extrahepatic bile ducts is scanty. In 1950, Chu[4] reviewed the reported cases and added one of his own. At that time only 30 cases were well documented. One more was reported by Anderson and coworkers.[1] In 1962, Dowdy and coworkers[5] reported three more cases, and on reviewing the literature from 1950 to 1960 they found reports of 40 additional cases. Also in 1962 Cattell and coworkers[3] reported nine cases.

Chu estimated that benign tumors can be expected in one out of five thousand operations on the biliary tract. However, some autopsy studies indicate a much higher incidence and suggest that the lesions are often overlooked. They occur in both sexes equally and at all ages but with prevalence in the sixth decade of life. In about one-third of cases the lesions are located at the ampulla of Vater. Usually they occur singly but in four cases multiple tumors were reported—all papillomas. Although widely variable in size, usually the tumors are 1 to 3 cm in diameter.

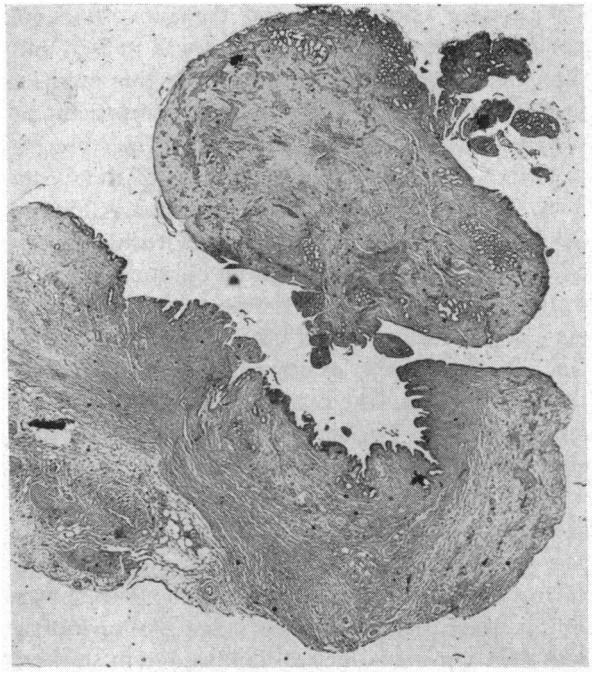

Figure 1.—Photomicrograph of resected specimen showing the polyp and the excised segment of the common bile duct (×15).

The largest tumor ever reported weighed 750 gm.

The growth may be sessile or pedunculated, soft or firm; and usually it projects into the lumen of the duct.

Histologically, the commonest types are the papillomas and adenomas. The former most commonly occur at the ampulla and the latter elsewhere in the biliary tract. The cause is unknown. Lipomas, carcinoid tumors, hamartomas, leiomyomas, granular cell myoblastoma and various other types have been reported. Cattell[3] considered the papillary tumors premalignant.

Surprisingly, the incidence of simultaneous choledocholithiasis is low. Stones were present in four cases of 52 reviewed by Moore.[6] Dowdy and coworkers[5] said that in five out of 43 cases reported between 1950 and 1960 there were calculi in the common duct.

In the case herein reported it is evident that the calculus, not the tumor, was the cause of jaundice.

Clinically, preoperative diagnosis is very difficult. Symptoms are widely variable and usually they develop gradually, sometimes over many years but occasionally in a few weeks. The incidence of various subjective symptoms is as follows: jaundice in 90 per cent of cases, pain in 81 per cent, dyspepsia in 42 per cent, weight loss in 42 per cent, chills and fever in 28 per cent and hemobilia in 10 per cent.[5] In most patients the liver is enlarged. If the tumor is below the opening of the cystic duct and causing obstruction, the gallbladder is usually enlarged and palpable. Rarely the tumor itself is palpable.

Radiological examination is occasionally helpful. In four reported cases the lesion was suspected from observations on intravenous cholangiography. One should suspect the tumor in cases of obstructive jaundice in which a cholecystogram shows no abnormality and symptoms recur after cholecystectomy. Even at operation diagnosis may be very difficult, for the tumors are often small and soft and probes may be passed through and around them. Operative cholangiography and careful palpation are very helpful. Duodenotomy is essential if ampullary tumor is suspected.

The treatment of choice is local excision; there is no place for radical procedures. Up to 1950, only 20 per cent of cases were successfully treated; from 1950 to 1960, 75 per cent. In this same period, the tumor was first noted at au-

topsy in six of the total of 43 cases, and in four of these six the patient had had biliary operation not long before death. Operative mortality in the 1950-1960 period was 10 per cent.

Summary

The case of a 65-year-old woman with a benign adenomatous polyp of the common bile duct is presented. The lesion was discovered incidentally during exploration of the common duct for an impacted calculus. Both the tumors and the stone were removed successfully.

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Occipitalization of Atlas With Hypoplastic Odontoid Process:

A Cineradiographic Study

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CONGENITAL ANOMALIES at the craniovertebral articulations and in the high cervical area have been of interest, neurologically and roentgenologically, since at least 1911.[2,5] Two of the better known anomalies are occipito-atlantal fusion[4] and failure of vertebral segmentation at the level of the second and third cervical vertebrae. Since failure of motion at a segment of the cervical spine tends to place an additional load on the next superior segment, an abnormal stress is produced at the level of the first to second cervical vertebrae. In addition to the required roentgenologic examination, the patient described in this report was also studied by cineradiography. The method of cineradiography has been reported previously.[3]

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Report of a Case

Six weeks before admission to the hospital, the patient, a 22-year-old white railroad switchman, fell when he jumped off a train. He rolled over repeatedly and was bruised at various places about his trunk and legs. That evening he complained of a severe cervical occipital headache, which persisted to the time of admission. It had become less severe and less frequent, however. The patient also complained of blurring of vision and some dizziness. In the hospital he complained of a feeling of "drawing up" of his legs whenever he flexed or extended the head. With these movements paresthesia was noted at times in both arms.

The patient, who was cooperative, was somewhat slender. He appeared well developed and well nourished. The neck was somewhat long and the shoulders were slender and sloping. A minimal asymmetry of reflexes was noted, with the right biceps slightly more active than the left. The right abdominal reflexes were slightly less active than the left and fatigued more rapidly, but patellar reflex was more easily elicited on the right. The plantar reflexes responded normally.

The sensory level appeared to be fairly consistent at about the fifth thoracic vertebra posteriorly and a little higher anteriorly. Position sense was definitely reduced in the toes of both feet although vibratory sensation was apparently unimpaired. Interestingly, sensitivity to pinprick over the thighs diminished considerably whenever the neck was flexed, and subjective complaints were reproduced. These changes were consistent on several examinations.

Roentgen Studies. Anteroposterior, lateral, and oblique projections were employed in the neutral, flexed and extended attitudes. Anteroposterior lateral laminagrams were obtained of the neck in flexion.

These studies showed incomplete segmentation